

Borough of Hartlepool.



THIRTIETH

ANNUAL REPORT

OF THE

Medical Officer of Health,

WITH THE

SECOND ANNUAL REPORT

UPON THE

MEDICAL INSPECTION
OF SCHOOL CHILDREN.

HARTLEPOOL :

B. T. ORD, PRINTER, LITHOGRAPHER, &C., MIDDLEGATE.

1912.

STATISTICAL MEMORANDA FOR 1911.

Area	...	...	...	972 $\frac{1}{2}$ acres.
Population, 1911	...	...	...	20,956
Birth-rate	...	...	...	31'1 per 1000.
Resident Death-rate	...	...	...	19'9 „ „
Zymotic	„	...	...	2'5 „ „
Phthisis	„	...	...	1'6 „ „
Infantile Death-rate	...	...	...	161 „ „ births.
Inhabited Houses	...	...	...	4228
Persons per Inhabited House	...	...	...	5'28
Census Population, 1891	...	...	...	20,422
„ „ 1901	...	...	...	22,618
„ „ 1911	...	...	...	20,356

LEGAL SUMMARY.

LOCAL ACTS.

Borough Extension Act, 1883.

Further „ „ „ 1897.

GENERAL ACTS.

Public Health Act, 1875.

Dairies, Cowsheds and Milk-shops Order, 1885.

Infectious Diseases Notification Act, 1889.

ADOPTED ACTS.

Public Libraries Act Adopted 1891.

Public Health Acts, Amendment Act. 1907 „ 1908.

HEALTH DEPARTMENT,
BOROUGH BUILDINGS,
HARTLEPOOL.

To the Town Council of the Borough of Hartlepool.

GENTLEMEN,

I have the honour to submit my Annual Report on the Health of the Borough, for the year, 1911.

I beg to acknowledge the courteous consideration shewn me, and the help willingly given by my various colleagues.

I have the honour to be, Gentlemen,

Your obedient servant,

B. C. STEVENS.

Also

To the Hartlepool Education Authority.

LADIES AND GENTLEMEN,

I have the honour to submit my Annual Report on the Medical Inspection of Schools in this Borough.

I beg to acknowledge your kind assistance, also the willing help of the Wardens and Teachers.

I have the honour to be, Ladies and Gentlemen,

Your obedient servant,

B. C. STEVENS.

Borough of Hartlepool.

SANITARY COMMITTEE.

Chairman : THE MAYOR, COUNCILLOR W. GIBB.

Vice-Chairman : COUNCILLOR WATSON.

ALDERMAN HARRISON.	ALDERMAN TATE.
COUNCILLOR ATKINSON.	COUNCILLOR MANN.
„ BARNFATHER.	„ PEARSON.
„ BRICKMAN.	„ SCOTT.
„ CHARLTON.	„ SHERWOOD.
„ EVERTON.	„ TIMLIN.
„ FIRBY.	„ WILLIAMSON.
„ HUBBICK.	

*Medical Officer of Health and Medical Officer to the
Education Authority :*

BERTRAM C. STEVENS, M.D., M.S. (Durh.), F.R.C.S. (Edin.),
L.R.C.P. (Lond.), D.P.H. (Oxon.).

Sanitary Inspector and Inspector under the Food and Drugs Act :

JOSEPH CHARLTON, A.R.S.I.

Report on the Public Health of the Borough of Hartlepool,

BY

B. C. STEVENS, M.D., F.R.C.S.E., D.P.H. (Oxon.)

A General Analysis of the Quarterly Vital Statistics for each Ward of the Borough of Hartlepool, for 1911.

1ST QUARTER	SOUTH	NORTH	THROSTON	MIDDLETON	TOTAL
137 Births -	28	48	55	6	137
78 Deaths -	21	37	29	1	78
Birth rate per 1000	23	33·8	29·7	29·7	
Death „ „	17·2	26	15·7	4·9	
Infectious Diseases	3	6	4	0	13

Chief causes of death during 1st quarter of 1911 were :—

UNDER 5 (27 deaths)—

Respiratory affections, 10. Premature birth, debility & malnutrition, 10.

OVER 5 (51 deaths)—

Tuberculosis, 9. Respiratory affections, 8. Cancer, 6.

Circulatory and heart affections, 18. Old Age, 8.

There were 13 cases of infectious disease causing 5 deaths, 2 from Measles, 2 from Diphtheria, and 1 from Whooping Cough.

Illegitimate Births, 5. Violent (un-natural) Deaths, 3.

2ND QUARTER	SOUTH	NORTH	THROSTON	MIDDLETON	TOTAL
181 Births -	46	51	75	9	181
108 Deaths -	27	36	42	3	108
Birth rate per 1000	34·8	33·1	37·4	41·2	
Death „ „	20·4	23·4	20·9	13·7	
Infectious Diseases	3	2	0	1	6

Chief causes of death during 2nd quarter of 1911 were :—

UNDER 5 (28 deaths)—

Convulsions, debility and premature birth, 16. Respiratory affections, 5.

OVER 5 (80 deaths)—

Tuberculosis, 13. Pneumonia, 7. Other respiratory affections, 9.

Cancer, 11. Heart and circulatory affections, 24. Old Age, 5.

There were 6 cases of infectious disease with no deaths.

Illegitimate Births, 8. Violent (un-natural) Deaths, 8.

3RD QUARTER	SOUTH	NORTH	THROSTON	MIDDLETON	TOTAL
181 Births -	47	60	65	9	181
88 Deaths -	18	32	36	2	88
Birth rate per 1000	35'6	39	32'4	41'2	
Death „ „	13'6	20'8	17'9	9'1	
Infectious Diseases	2	3	3	0	8

Chief causes of death during 3rd quarter of 1911 were :—

UNDER 5 (42 deaths)—

Diarrhoea, 25. Convulsions, debility and premature birth, 12.

OVER 5 (46 deaths)—

Tuberculosis, 10. Cancer, 8. Heart and circulatory affections, 14.
Old Age, 3.

There were 8 cases of infectious disease with one death from Measles, and one from Diphtheria. There was one case of Enteric Fever, the only case occurring in a resident during the year.

Illegitimate Births, 7. Violent (un-natural) Deaths, 6.

4TH QUARTER	SOUTH	NORTH	THROSTON	MIDDLETON	TOTAL
153 Births ...	27	47	74	5	153
126 Deaths ...	30	49	42	7	126
Birth rate per 1000	18'8	28	33'9	21	
Death „ „	20'8	29'3	19'7	29'4	
Infectious Diseases	4	8	3	0	11

Chief causes of death during 4th quarter of 1911 were :—

UNDER 5 (53 deaths)—

Diarrhoea, 5. Pneumonia, 5. Other respiratory affections, 12.
Convulsions, debility and premature birth, 19.

OVER 5 (73 deaths)—

Tuberculosis, 13. Respiratory affections, 9. Cancer, 8.
Heart and circulatory affections, 23. Old Age, 6.

There were 11 cases of infectious disease with one death from Diphtheria, and one from Enteric Fever—both cases died in the Port Sanitary Hospital, and both were non-residents of this Borough. There was also one death from Whooping Cough.

Illegitimate Births, 7. Violent (un-natural) Deaths, 9.

Average Annual Death Rate for each Ward—

South Ward	...	...	18
North Ward	...	...	24'87
Throston Ward	...	...	18'55
Middleton Ward	...	...	14'27

Average Annual Birth Rate for each Ward—

South Ward	...	...	28'05
North Ward	...	...	33'47
Throston Ward	...	...	33'35
Middleton Ward	...	...	33'27

The high death rate of 24'87 in the North Ward is the outcome of living in a crowded, dilapidated, and insanitary area.

Population of the Four Wards as revealed by the 1911 Census—

South Ward	...	5,194
North Ward	...	6,205
Throston Ward	...	8,067
Middleton Ward	...	890
Total	...	<u>20,356</u>

Acreage of the Four Wards—

South Ward	...	107 acres
North Ward	...	127 "
Throston Ward	...	642 $\frac{1}{2}$ "
Middleton Ward	...	96 "

Density of Population—

South Ward	...	48'4 persons to the acre
North Ward	...	48'8 " "
Throston Ward	...	12'5 " "
Middleton Ward	...	9'2 " "

POPULATION.

The **population** at the census of 1891 was 20,422 and had increased at the census of 1901 to 22,618. The population of the Borough at the last census of 1911 is 20,356, so that it is much the same as it was 20 years ago, but 2,262 less than it was 10 years ago.

The number of **inhabited houses** at the census of **1901** was 3,718, and gave an inhabited house rate of 6'16 persons.

The number of **inhabited houses** at the census of **1911** is 4228, giving an inhabited house rate of 4'81; after allowing 1 person for each uninhabited house (as is usual), it works out at 5'28 persons per house.

The **natural** increase of population or the excess of the number of births over deaths for 1911 is 234.

The **area** of the Borough is 972½ acres. The areas of the various Wards and the density of the population in the same are given on page 7.

BIRTHS.

The number of **Births** registered during the year is 652, being an increase of 2 compared with last year, but a decrease of 74 on the average for the last ten years.

The birth rate is 31·1 per 1,000 of the estimated population, compared with 27 per 1,000 in 1910 (reckoned on a population of 24,000). The highest birth rate (33·47) is in the North Ward and the lowest (28·05) in the South Ward.

The birth rate of Hartlepool is considerably higher than that of England and Wales, which for 1910 was 24·8, and which averages for the last five years only 26 per 1,000.

Illegitimacy.

Of the 652 births registered, 27 were illegitimate or 4·14 per cent; that is, out of 1,000 births 958·6 are legitimate and 41·4 are illegitimate.

The death rate amongst illegitimate children amounts to 222·2 for every 1,000 born.

DEATHS.

The total number of deaths registered within the Borough is 446, but for comparative purposes certain corrections have to be made.

For example 32 deaths of non-residents have to be deducted, and 6 deaths of residents in other parishes or districts have to be added. The **nett** deaths therefore are 418.

There were 86 deaths in Public Institutions, viz.:—The Hartlepoons' Hospital, the Port Sanitary Hospital and the Hartlepoons' Union Workhouse, which is situated in the rural district of Throston Parish.

The **death rate** is 19·9 per 1,000 of the population. The death rate was 14·4 per 1,000 for the year 1910, but this was reckoned on a population of 24,000, against an estimated population of 20,956 for 1911.

The average death rate for England and Wales for the past 10 years is 15·3 per 1,000.

MORTALITY at different ages :

Deaths.	Age Group.	Rate per 1,000 of Population.
105	Under 1 year	5'0
49	1 to 5 years	2'3
42	5 to 25 years	2'0
132	25 to 65 years	6'3
90	65 years and upwards	4'3
418	All Ages	19'9

Infantile Mortality.

There were 105 deaths of children under 1 year of age, which is in the proportion of 161 deaths to every 1,000 children born.

In 1910 there were 104 deaths recorded in children under 1 year of age, and as there were 650 births the proportion for 1910 is 160 deaths to every 1,000 children born.

For the past 10 years the Infantile Mortality averages 126 for London and 127 for England and Wales.

There is a very large and alarming death rate among infants, and it is due chiefly to Infantile Atrophy and Marasmus, Diarrhœa, and Respiratory Affections.

These conditions are brought about by ignorance on the part of the mother, want of breast milk, exposure to inclement weather, dark and unhealthy surroundings, artificial feeding from long tube bottles, contaminated feeding utensils, and food infections by dust and flies.

A pamphlet has been freely circulated amongst such homes, containing plain homely facts on home hygiene and the management of infants.

To further combat this mortality a **Health Visitor is urgently needed**, and also the adoption of the **Notification of Births Act**.

Cases notified as Convulsions have not been classified, because a Convulsion is only a symptom and not a disease *per se*. Errors in diet and rises in temperature no doubt upset the central nervous system and a nerve storm or convulsion is the result.

Causes of deaths in Infants under 1 year.

Measles	...	...	3
Diphtheria	...	...	1
Tuberculosis	...	...	3
Bronchitis	...	...	11
Pneumonia	...	...	7
Diarrhœa	...	...	20
Kidney Disease	...	...	1
Congenital Debility	}	...	39
Mal-nutrition and		...	
Premature Birth		...	
Violent Deaths	...	...	3
Atelectasis	...	...	2
Other diseases	...	...	15
Total			<u>105</u>

ZYMOTIC DISEASES.

These comprise Small-pox, Scarlet Fever, Diphtheria, Continued Fevers (including Typhoid or Enteric and Typhus), Measles, Whooping Cough, and Epidemic Diarrhœa.

There were 43 deaths of Residents from the seven chief zymotic diseases :—

Small-pox	...	...	0
Scarlet Fever	...	...	0
Diphtheria	...	...	3
Continued Fever	...	...	0
Measles	...	...	3
Whooping Cough	...	...	2
Epidemic Diarrhœa	...	...	37
			<u>43</u>

The zymotic death rate is 2·5 per 1,000 of the population, which is about the average rate for the country in general.

NOTIFIABLE INFECTIOUS DISEASES.

The diseases to which the Act of 1889 applies are :—Small-pox, Cholera, Diphtheria (Membranous Croup), Erysipelas, Scarlet Fever, and the Fevers known as Typhus, Typhoid (Enteric), Relapsing, Continued, and Puerperal. Added recently is Pulmonary Tuberculosis. To these may shortly be added Epidemic Polio-myelitis and Cerebro-spinal Fever.

The number of notifications received from medical practitioners during the year was 38, or just half the number reported in 1910.

There were only 3 deaths from Notifiable Infectious Diseases, compared with 17 deaths in 1910.

The following table analyses the various Notifiable Diseases for 1911:—

Scarlet Fever—28 cases. No deaths.

North Ward ...	...	...	8
South Ward ...	...	...	12
Throston Ward	...	...	7
Middleton ...	...	...	1

7 cases were removed to the Port Sanitary Hospital.

Diphtheria—8 cases. 3 deaths.

North Ward ...	...	...	3
South Ward ...	...	...	0
Throston Ward	...	...	5
Middleton ...	...	...	0

No cases were removed to the Port Sanitary Hospital.

Enteric Fever (Typhoid)—1 case. No death.

South Ward	1
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1 case removed to the Port Sanitary Hospital.

Erysipelas—1 case. No death.

North Ward	1
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Not removed to the Port Sanitary Hospital.

Small-pox.—Cases notified 0.

Hartlepool being a port, one must always be on the watch for Small-pox, but fortunately no cases have occurred, either this year or last. It is so easy now-a-days to get exemption from vaccination that the number of unvaccinated people is yearly increasing, and one views with dismay what would happen once Small-pox got a hold in a crowded and poor community. The rate of exemptions per cent. of births from vaccination has increased from 3'6 in 1902 to 21'6 in 1909, for England and Wales.

Plague.—Several outbreaks having occurred in various parts of Great Britain, recommendations have been issued to all Port Medical Officers, urging:

1. Destruction of all rats.
2. Clearance of their haunts and burrows.
3. Making all dwellings, sheds, warehouses, etc., rat proof.
4. Removal of refuse heaps or collections of waste food.
5. Special attention to the holds of ships, and to their moorings when in dock.

Scarlet Fever—Cases notified 28. Deaths 0.

The type of disease seen recently is exceedingly mild, owing chiefly to a great attenuation of the virus of Scarlet Fever. January and November were the months when most cases arose, but they have been scattered through every month in the year. In every case of Scarlet Fever the house is visited—disinfected—and carefully worded printed instructions left. The death rate has steadily declined, generally for England and Wales.

From 72 deaths per 100,000 in the decennium	1871-80
to 34 „ „ „	1881-90
to 16 „ „ „	1891-1900
to 11 „ „ „	1901-1910

Diphtheria—Cases notified 8. Deaths 3. Case fatality per cent. 37·5.

In 1910 there were 11 cases with 3 deaths.

In 1909 „ 10 „ 1 „

During 1911 there were no cases after July. There is, therefore, very little Diphtheria in the Borough. The old idea of Diphtheria being brought about by bad smells and faulty drains must be abandoned, though of course by lowering the resistance of the tissues of the throat and nose they frame the way for an attack of Diphtheria.

Diphtheria is spread practically always by direct contact, as by kissing, or by inhaling the breath of a patient while coughing. In some cases also, the disease may be conveyed by infected pet animals; and again, **milk** is a medium for its conveyance. Many people have the germs of Diphtheria in their mouths, and, though not having an attack themselves, may give it to others who happen to be more susceptible. The former are called “Diphtheria Carriers.”

In order to assist medical practitioners in the early diagnosis of the disease, they may send to the County Laboratory swabs taken from the suspected throat.

The number of swabs so examined this year was three, two of which were positive and one negative.

Success in the treatment of Diphtheria depends on the **early** administration of Antitoxin; and it would be a good thing if a small store of Antitoxin was kept at the Public Health Office, so that practitioners could have it at once for those patients who are unable to afford it.

For England and Wales during the decennium of 1891-1900 the death rate per 100,000 was 26, while for the decennium 1901-10 it had fallen to 18 per 100,000.

Typhoid Fever—There was only one case occurring in residents in the Borough during 1911.

There is no reason to expect an outbreak of typhoid, because the water supply is exceptionally pure, and protected from contamination, and the water-carriage system of sewage is universal. I would warn inhabitants, however, of gathering shell-fish from the rocks on the shore, as a good deal of sewage is washed back on to these rocks.

For England and Wales the average death rate per 100,000 from Enteric Fever has fallen from 17 in 1891-1900 to 9 during the period 1901-10.

Typhus—No cases. This disease is practically extinct in this country, for the death rate is only '9 per million of the population.

Puerperal Fever—No cases notified. The death rate for the Country has dropped from 2'24 per 1,000 births in 1901 to 1'60 per 1,000 in 1909.

Measles—There were only 3 deaths from Measles—last year (1910) there were none. In cases of Measles a leaflet is sent to the parents explaining the need for care, and the risk of Bronchitis.

The death rate per 100,000 from Measles in England and Wales for the period 1901-10 was 31.

Whooping Cough—2 deaths. There has been no prevalence of Whooping Cough this year, but I find that many parents call any harsh, noisy cough, "Whooping Cough."

When a case occurs, a leaflet is sent to the home explaining the necessity for care and medical treatment, and pointing out the infectiousness of the disease.

The death rate per 100,000 for England and Wales during the period 1901-10 was 27.

Diarrhoea—37 deaths.

Under 5 years	...	...	31
Over 5 years	...	...	6

Diarrhœa is a very prevalent and fatal disease amongst young children. It is always more prevalent during a hot and dry Summer, for then there are more flies, more dust, and a greater tendency for food to go bad, and milk to go sour.

It is in the Summer that the scavenging must be most efficient and thorough, and the roads kept well watered. All receptacles for rubbish should be kept covered, all manure heaps must be frequently removed, and all milk should be boiled.

Scavenging by means of uncovered pails and uncovered carts spreads infected dust widely; and while the pails are waiting at the door, flies alight on their contents and carry on their legs and in their bodies germs of all sorts into the house. If all vegetable and animal refuse was burned on the kitchen fire, instead of being allowed to accumulate in pails and wooden tubs, the difficulties of efficient scavenging would be minimised.

Shopkeepers who sell articles of food should take special pains to kill or trap all flies in their shops.

One of the best methods, is to place in a shallow dish one teaspoonful of Formalin in a pint of sweetened water, and leave it in the shop window.

Pulmonary Tuberculosis—There were 35 deaths from consumption of the lungs, 26 of which occurred during the best years of life.

In 1910 there were 15 deaths and in 1909 there were 14.

Five of these deaths from Phthisis occurred in the Workhouse Infirmary.

The death rate per 1,000 from consumption of the lungs is 1·6, which is a trifle higher than the rate for the Country generally.

During the period 1901-1909 the rate was 117 deaths per 100,000 of the population from Pulmonary Tuberculosis in England and Wales.

Other Tubercular Diseases—There were 20 deaths from Tuberculosis affecting other portions of the body than the lungs.

This makes 55 deaths altogether from all forms of Tubercular Disease, which is equal to a rate of 2·6 deaths per 1,000 of the population.

A very great deal might be said about Tuberculosis, but the bed-rock of all preventive treatment is the instilling of modern ideas of fresh air, cleanliness, temperance, and a "health-conscience" into the home. If there is a consumptive in a house, he **must** sleep in an airy bedroom by himself, he **must** be extra well fed, and he **must** immediately destroy or disinfect any expectoration he may cough up.

Instead of getting hold of the very early cases and treating them in Sanatoria, it would, I think, be more useful to have homes for the dying and incurable cases, and so save the rest of the household.

Then there is the question of allowing consumptives to marry. The offspring of tuberculous parents are not born consumptive but they run a tremendous risk of getting infected during the first few months of life. And again, it has been said by an expert in lunacy, that many "idiot" children owe their existence to the fact that their parents failed to die of consumption.

Notification.—Under the 1908 Public Health (Tuberculosis) Regulations, all cases of Pulmonary Tuberculosis occurring amongst the inmates of Poor Law Institutions or of persons under the care of District Medical Officers have to be notified.

14 such notifications have been received during 1911, representing 12 cases (as two of the cases have been notified twice). These people have (so far as one has been able) been looked up and given careful instructions as to what to do at home, while the rest of the family have been examined as to their health.

As many of the cases are vagrants, with no fixed address, it has been impossible to trace them all.

The Wards to which these cases were allocated are:—

North Ward ...	...	...	2
South Ward ...	...	...	6
Throston Ward	...	...	4
Total ...			<u>12</u>

The year 1912 marks a new epoch with regard to Pulmonary Tuberculosis, in that every case has to be notified to the Medical Officer of Health, whose duty it is to visit and advise, and to see that all possible steps are taken to alleviate the sufferer and to protect the rest of the household.

When this Authority has means of treating and accommodating cases of consumption in this district, a dispensary or "clearing house" should be started, and all cases must attend; and afterwards be suitably accommodated according to the extent and severity of their disease.

A number of consumption cartoons and handbills have been distributed through the town and posted in prominent places.

Cancer—Deaths 25. Mortality rate per 1,000, 1'2. Five deaths occurred in the Workhouse Infirmary amongst residents in Hartlepool.

The above mortality rate is about the same as that for the Country generally.

Respiratory Diseases (exclusive of consumption and whooping cough)—

Bronchitis	...	...	31 deaths
Broncho-pneumonia	...	...	8 "
Pneumonia	...	...	21 "
Other Respiratory Diseases			6 "

66

66 deaths from Respiratory Diseases give a mortality rate per 1,000 of 3.1.

31 deaths occurred in children under 5 years of age.

SCAVENGING AND DISPOSAL OF REFUSE.

The destructor is doing useful work, and is worked at comparatively small cost. It is most important for the destruction of fish offal, of which there is a large quantity, owing to the fishing industries in the town.

The amount of refuse delivered by the Corporation carts and consumed at the destructor amounts to 10,955 loads for the year, (a load=17 cwts.)

I think some of the side streets should receive more attention, and that paper, etc., on the Moor and Promenade should be more diligently collected; also that the Corporation carts should be kept at least partly covered.

As we have no apparatus for disinfecting bedding, etc., I would suggest that some use be made of steam from the furnaces of the destructor, so that infected articles could be disinfected there. Perhaps our Borough Engineer will give this matter his thought and attention.

OFFENSIVE TRADES.

There are no regular offensive trades, beyond a small amount of tripe boiling and gut scraping, done by the butchers on their own premises.

These, however, are frequently inspected, and no nuisance is tolerated.

I think fish-frying should be scheduled as an offensive trade, as a good deal of nuisance may arise from such occupation.

SLAUGHTER-HOUSES.

There are some 23 slaughter-houses in the Borough. In 7 of them slaughtering takes place in the shop itself; in 13, in premises at the back of the shop; in the rest, in separate premises.

Some of these premises are kept very clean and tidy—others are dilapidated and cramped, and it would be better if they were closed.

It is not difficult to see how unsatisfactory meat inspection is, under these conditions. In the special Bye-Laws made by the Council for the Borough, with respect to slaughter-houses, no mention is made as to the proximity of dwelling houses to the slaughter-house.

Where there is no Public Abattoir, the next best thing is, for the butchers to form an association and adopt a system of insurance, whereby compensation may be given, after inspection by one of their number, for all meat condemned as being unsound and unfit for human food. They should also agree to notify the Medical Officer of any diseased or unsound animal.

DAIRIES, COWSHEDS, and MILKSHOPS.

The Order of 1885 has been adopted by this Authority, but the weakness of the law in registering the person and not the premises has resulted in a number of most unsuitable premises being in use for the sale of milk.

There are 35 registered milkshops in the Borough, of which only one keeps cows. There are five other people who bring in milk direct from the farm, but have no place or shop, for sale of milk, in the Borough.

One of the small shops has recently stopped the sale of milk as the result of an action for selling it adulterated.

I consider that an unnecessary element of risk is introduced by allowing small general shopkeepers to sell milk. The shop is, as a rule, small, badly lighted, badly ventilated, and opening into the living room. More often than not, the milk is not kept covered, and many of these shops (which are confectioners) are swarming with flies in the hot weather. Moreover, many of these people do not understand what strict cleanliness means, and I have seen an earthenware basin, supposed to have been scalded out, subsequently dried on the dirty apron worn by the shopkeeper, which of course, undoes any good that may have arisen from the previous washing.

I feel that the Infantile Mortality of this Borough will still be very high, as long as these small intermediate milkshops continue to add their quota of disease to the already deadly milk pail.

“Infant mortality is the most sensitive index yet known to us of the efficiency of sanitary administration,”

I would suggest that in these cases the milk in these shops should be kept in a meat-safe nailed up to a wall outside, and well removed from any drain, ash-pit, or W.C.

To people who continue to get their milk from such sources I can only urge boiling it as soon as they get it.

BAKEHOUSES.

There are 5 registered bakehouses, 2 of which are underground.

In one of the underground bakehouses, extensive repairs will have to be executed, or the place must be closed.

Another bakehouse was dark, and untidy, and contained a lot of scrap iron, which was ordered to be removed, and the place cleaned up.

DISPOSAL OF SEWAGE

In the lower end of the town there is not sufficient fall to clear the main sewer which runs into the sea, with the result, that bad smells arise. I think some system of extra flushing might be utilised in this respect.

The outfall at Throston should be carried out further to sea, as the end is exposed at low water, and the set of the tides carries sewage back towards the shore, where in warm weather a nuisance arises.

These points I hope will be taken up by the Borough Surveyor and some action taken by the Authority.

HOUSING AND TOWN PLANNING.

It is proposed in 1912 to go into this subject systematically, for there is very much room for improvement in this direction in this town.

Want of funds, and a low rateable value (the rateable value is £75,130; one penny in the £ produces £284 1s. 5½d.) together with trade depression, have held the hands of the Council in the past, but it is hoped that in the near future something will be done.

There is no doubt that the amount of slum-property is out of all proportion to the size of the town. The tendency is for bad property to attract bad tenants, who, in turn, leave the property worse than they found it, and so things go from bad to worse.

All structural and insanitary defects have been reported to the landlords, and these have in most cases been remedied; in other cases the houses have been emptied and just shut up as they were.

The Corporation has bought up several houses and closed them; it has also built some 22 new houses, which are in great demand. It is hoped that this will act as an incentive to go forward, and pull down more slum property and put up new houses. It would be better to do this in some definite area rather than in sporadic cases.

The abundance of slum property and the number of people who inhabit such, is shewing its bad effects in the social, moral, and physical degeneracy of such people and their children; as is seen by the high rate of infantile mortality, and the poor physique of the children generally.

MEDICAL INSPECTION OF SCHOOL CHILDREN.

A new and efficient scheme has been started in the Borough, and during the year, all the Infants and Leavers have been examined, as well as a number of special cases.

A full report of the work done is appended to this report.

MIDWIVES' ACT, 1902.

Durham County Local Supervising Authority.

In the new edition of the Rules of the Central Midwives' Board, Rule E 5 is as follows:—

“Whenever a Midwife has been in attendance, **whether as a midwife or as a nurse**, upon a patient, or in contact with a person suffering from

“Puerperal Fever or from any other condition supposed to be infectious, or is herself liable to be a source of infection, she must disinfect herself and all her instruments and other appliances, and must have her clothing thoroughly disinfected to the satisfaction of the Local Supervising Authority, before going to any other maternity patient.”

There have been no cases of Puerperal Fever notified during the year, but on hearing of such notification I report to the County Medical Officer as follows:—

HARTLEPOOL URBAN DISTRICT,

.....191

A case of Puerperal Fever has been notified from.....
and Certified Midwife (acting as a Maternity Nurse (*Name*).....
of.....is in attendance on the patient.

Instructions have been given to the Midwife as to the disinfection of herself and clothing before attending any other midwifery case.

(Signed).....

Medical Officer of Health.

COMMON LODGING HOUSES.

There are 7 Registered Houses in the Borough and these are well supervised by the Sanitary Inspector and myself.

The dormitories are all fairly clean and ventilated, but in some instances the common-room is wretched, with bad floors, and badly lighted. All defects in this direction have, as far as possible, been rectified.

As a number of vagrants who frequent these places are suffering from Consumption, cartoons have been placed in each common-room; and the dangers of spitting on the floors are pointed out in a graphic way.

POOR LAW RELIEF DURING 1911.

1,062 orders were issued for medical attendance.

506 ,, ,, admission to Workhouse.

45 deaths occurred among Hartlepool cases in Workhouse.

The average number per week in receipt of out-door relief is 455, which is equal to a rate of 21.7 per 1,000 of the inhabitants.

METEOROLOGICAL REPORT FOR 1911.

Elaborated from figures obtained at the Heugh Lighthouse by the courtesy of the Port and Harbour Commissioners.

1911. MONTHS	BAROMETER	AIR TEMPERATURE.				Force of Wind	Rainfall in inches	Number of Dry Days.
	Corrected Mean Pressure in inches	Max. (daily)	Min. (daily)	Dry Bulb.	Wet Bulb.			
Jan.	30.77	43.6	37.8	40.19	39.2	4.6	1.52	17
Feb.	29.63	42.9	37	39.1	38	5	1.71	11
Mar.	30.15	45.3	37.9	40.9	39.6	5	2.75	9
Apr.	29.88	51.5	41.6	45	43.2	4	1.34	7
May	29.92	55.8	48.5	51.9	49.4	3.2	.57	21
June	29.96	60.9	52	53.9	51.3	3.9	4.33	13
July	30.02	70.1	59.7	60.5	57.6	3.6	1.16	24
Aug.	29.88	65.8	58.5	63.4	61.3	5	2.81	14
Sept.	29.87	62.4	47.3	50.1	48.2	5.7	1.90	18
Oct.	29.90	52	46	48.4	47.4	5	2.11	8
Nov.	29.50	45.9	40.9	42.6	41.3	6.5	4.03	6
Dec.	29.58	45.9	40.3	42.4	41.4	7	2.41	8

Hartlepool (Heugh Lighthouse) { Lat. $54^{\circ} 41''$ — 51° N.
Long. $1^{\circ} 10''$ — 19° W.

The rainfall amounts to 26.64 inches for the year and this has been largely contributed to by the last three months of the year which have been wet. There were only 22 dry days in the whole three months of October, November, and December.

July and May were the two driest months as regards actual amount of rainfall.

November and December were the most windy months of the year, as there were several gales during that period. The numbers referring to the wind are explained by Beaufort's table given below.

The barometer reads highest for January, and lowest for November and December, hence the windy and wet weather.

The maximum shade temperature was recorded in July, and the minimum in February.

The relative humidity of the air, or the relation of the amount of moisture in the air to the amount required to produce absolute humidity or saturation, has not been worked out, as it requires the aid of various tables giving the elastic tension of the air at the different temperatures. For our purpose it is sufficient to notice that the nearer the temperatures of the wet and dry bulbs of the hygrometer approach one another, the greater the amount of moisture in the air.

This is apparent in March, October, November and December, all months in which there was a considerable rainfall.

The two exceptions are June and August, but here the higher temperature came into play, hastening the evaporation from the wet bulb and so increasing the difference between its temperature and that of the dry bulb.

BEAUFORT'S SCALE.

			Velocity of Wind
0=calm	...	...	= 0 miles per hour
1=light air	...	...	= 2 "
2= " breeze	...	...	= 5 "
3=gentle "	...	...	= 10 "
4=moderate breeze	...	...	= 15 "
5=fresh breeze	...	...	= 21 "
6=strong breeze	...	...	= 27 "
7=moderate gale	...	...	= 35 "
8=fresh gale	...	...	= 42 "
9=strong gale	...	...	= 50 "
10=whole gale...	...	...	= 59 "
11=storm	...	...	= 68 "
12=hurricane	...	...	= above 75 "

WATER SUPPLY AND GEOLOGY OF THE DISTRICT.

The belt of limestone, which starts at Nottingham and runs northward, expands slightly as it reaches the Durham coast, where it extends from Hartlepool on the south to South Shields on the north.

The town of Hartlepool is mainly built on an upstanding spit of this limestone, which has a maximum height of 36 feet above sea level, in the neighbourhood of St. Hilda's Church.

Towards the south, commencing at Longscar Rocks, can be seen an outcrop of sandstone belonging to the upper layer of the same series as that to which the limestone belongs, viz., the Permian; so that the limestone lies under the sandstone there.

The limestone strata to the west of the town, following the contour of the country, slope upwards to the higher ground in the neighbourhood of Hart. Water falling on this higher ground percolates through to the more open deeper layers of the limestone; and in these it gravitates towards the lower ground. It is, however, arrested from escaping seawards by an impervious mass of anhydrite (anhydrous gypsum) several hundred feet thick, included in the limestone at Hartlepool; and being prevented from rising to the surface by the impervious upper strata of the limestone, interspersed with which are several layers of compact ironstone—there are present the conditions necessary for the phenomenon of the artesian well; and in bore-holes made on the lower parts of the slope into the deeper layers of the limestone, the water rises to a considerable height.

The public water supply is provided by the Hartlepool Gas & Water Company, and amounts to 42 gallons per head per diem, of which 26 are for domestic and 16 for trade purposes.

The supply for domestic purposes is derived from a series of borings spread over an area of 12 acres in the neighbourhood of Middleton Road, West Hartlepool.

Borings, six inches in diameter, are made in the limestone to the depth of 150 to 250 feet, and the water rises to within 20 to 25 feet of the surface.

At this level, the borings are connected by a large culvert, in which the water flows to a central well on the site; and from this it is pumped into overhead tanks 130 feet high, so that it obtains sufficient pressure to gravitate throughout the area of supply.

The supply seems for all practical purposes to be inexhaustible, as all the bores already in existence are not in use, and the supply from those in use can be increased by a third of the present amount by increased pumping.

The supply for the rural neighbourhood is pumped to an open reservoir at Naisberry, 380 feet above sea level, and distributed to the farms, etc., in the neighbourhood. The water contains a high degree

of lime, magnesium and sodium chlorides, characteristic of the formation from which is derived, so that it has a high degree of both temporary and permanent hardness, and has also, to those who are new to it, a slightly saline taste.

Its derivation from a great depth in the limestone guarantees its original freedom from organic pollution; and the method of its distribution is such, that subsequent contamination is impossible on its way to the household.

An important factor is the plentiful supply available, which causes a constant positive head of pressure in the water pipes in the streets, so that there is no danger of sewage contaminations being sucked in at faulty joints, as may happen in towns where the supply of water from headquarters is intermittent, and there are periods in the day when there is a danger of negative pressure occurring in the mains.

As a result of these conditions it can truthfully be said that Typhoid Fever, the great water-borne disease, is practically non-existent in Hartlepool.

Subjoined is an analysis of the water by the Chemical Research Association which shews the high percentage of the ingredients named above, and also the practically complete absence of the nitrogenous constituents which are the indicators of sewage pollution.

Analysis of Hartlepool Water.

(1) Chemical.					Parts per 100,000.
Total solids (dried at 120 deg. C.)	...	...	...	...	57.7
Chlorine	...	...	...	...	5.00
Nitrates	...	...	...	...	0.13
Nitrites	...	...	...	...	Nil
Free Ammonia	...	...	...	...	0.0016
Albuminoid Ammonia	...	...	...	...	0.0012
Oxygen absorbed (in 4 hours at 27 deg. C.)	...	...	...	...	0.003
Lead or Copper	...	...	...	...	Nil
Temporary hardness	...	...	...	...	29.7
Permanent hardness	...	...	...	...	10.6
Total hardness	...	...	...	...	40.3

(2) Bacteriological (cultural and microscopical)—

Average number of organisms producing visible colonies on gelatine plates, incubated at 20-22 deg. C. for 3 days = 13 per c.c.

Average number of organisms producing visible colonies on agar plates, incubated at 37.5 deg. C. for 2 days less than 1 per c.c.

B. Coli	not found in	...	100 c.c.
Streptococci	„ „	...	30 c.c.
B. Enteritidis Sporogenes	„ „	...	100 c.c.

These results show the water to be somewhat hard, but of a high degree of organic bacterial purity.

The water for trade purposes is derived from a watershed area of 6,724 acres, which lies on the high ground about 16 miles to the west of the town, and is collected in reservoirs at Crookfoot and Hurworth Burn, where some 400 millions of gallons can be stored, and from thence it runs in pipes to the town.

For the above data I am greatly indebted to my colleague Dr. Milne, and to the Engineer and General Manager of the Hartlepool Gas and Water Company, Thomas Bower, Esq.

LOCAL GOVERNMENT BOARD FORM.
BOROUGH OF HARTLEPOOL.

PHTHISIS: SANATORIUM AND HOSPITAL ACCOMMODATION.

Classes for which accommodation is provided.	By whom provided.	Where situated.	Total number of Beds.	How are patients selected?	Are patients under the care of a resident Medical Officer?	What charge, if any, is made for the use of Beds?	Do the Sanitary Authority use— (1) their Isolation Hospital, or (2) their Small-pox Hospital, for cases of Phtisis.	Do the Sanitary Authority reserve Beds in any Phtisis Sanatorium; If so, how many, and in what Sanatorium?	Do the Sanitary Authority provide portable open-air Shelters or Tents?
(a) Early cases.	Hospital Committee	The Hartlepoons Hospital (Town Moor) (Patients occupy the verandah)	No fixed number	By the Honorary Staff.	YES	NONE	NO	NO	NO
b) Intermediate cases.	NONE	NONE							
c) Advanced cases.	NONE	NONE							

Have the Council, or any Private Body, provided } NO.
a Dispensary. If so, give particulars.

B. C. STEVENS,
Medical Officer of Health.

January 1st, 1912.

TABLE I.

LOCAL GOVERNMENT BOARD TABLE.
VITAL STATISTICS of WHOLE DISTRICT during 1911 and previous Years.

NAME OF DISTRICT: HARTLEPOOL.

Year	Population estimated to Middle of each Year.	Births		Total Deaths Registered in the District.		Transferable Deaths†		Nett Deaths belonging to the District.				
		Un- corrected Number	Nett.	Number +	Rate.	Number %	Rate.	of Non- residents not register'd in the District. +	of Resi- dents not register'd in the District. +	Under 1 year of age		At all Ages.
										Rate per 1000 Nett Births	Number %	
3	4	5	6	7	8	9	10	11	12	13		
I	2											
1906	24,000	716	716	29.8	416	17.3	...	...	105	146.5	416	17.3
1907	24,000	695	695	28.9	376	15.6	...	...	81	116.6	376	15.6
1908	24,000	704	704	29.3	354	14.7	...	...	90	127.8	354	14.7
1909	24,000	620	620	25.8	321	13.3	...	...	66	106.1	321	13.3
1910	24,000	650	650	27	347	14.4	...	...	104	160	347	14.4
1911	20,956	652	652	31.1	446	21.2	32	6	105	161	418	19.9

NOTES.—This Table is arranged to show the gross births and deaths in the district, and the births and deaths properly belonging to it with the corresponding rates. For years before 1911 some of the corrected rates probably will not be available. The rates should be calculated per 1,000 of the estimated gross

population. In a district in which large Public Institutions for the sick or infirm seriously affect the statistics, the rates in Columns 5 and 13 may be calculated on a nett population, obtained by deducting from the estimated gross population the average number of inmates not belonging to the district in such institutions.

*In Column 6 are to be included the whole of the deaths registered during the year as having actually occurred within the district.

In Column 12 is to be entered the number in Column 6, corrected by subtraction of the number in Column 8 and by addition of the number in Column 9. Deaths in Column 10 are to be similarly corrected by subtraction of the deaths under 1, included in the number given in Column 8, and by addition of the deaths under 1 included in the number given in Column 9.

†The Medical Officer of Health will be able from the returns made to him by the Local Registrar of Deaths to fill in Column 8 in accordance with the rule in the next paragraph below. The Registrar-General, either directly or through the County Medical Officer of Health, will supply the Medical Officer of Health with the particulars of deaths to be entered in Column 9; and all such deaths must be included in this Column, unless an error is detected, and its correction has been accepted by the Registrar-General. For Column 4 the Registrar-General will furnish to the Medical Officer of Health, a Statement of the number of births needing to be added to or subtracted from the total supplied by the local Registrar.

‡“Transferable Deaths” are deaths of persons who, having a fixed or usual residence in England or Wales, die in a district other than that in which they resided. The deaths of persons without fixed or usual residence, *e.g.*, casuals must not be included in Columns 8 or 9, except in certain instances under 3 (b) below. The Medical Officer of Health will state in Column 8 the number of transferable deaths of “non-residents” which are to be deducted, and will state in Column 9 the number of deaths of “residents” registered outside the district which are to be added in calculating the nett death-rate of his district.

The following special cases arise as to Transferable Deaths :—

(1) Persons dying in Institutions for the sick or infirm, such as hospitals, lunatic asylums, workhouses, and nursing homes (but not almshouses) must be regarded as residents of the district in which they had a fixed or usual residence at the time of admission. If the person dying in an Institution had no fixed residence at the time of admission, the death is not transferable. If the patient has been directly transferred from one such institution to another, the death is transferable to the district of residence at the time of admission to the first Institution.

(2) The deaths of infants born and dying within a year of birth in an Institution to which the mother was admitted for her confinement should be referred to the district of fixed or usual residence of the parent.

(3) Deaths from Violence are to be referred (a) to the district of residence, under the general rule; (b) if this district is unknown, or the deceased had no fixed abode, to the district where the accident occurred, if known; (c) failing this, to the district where death occurred, if known; and (d) failing this, to the district where the body was found.

Total population at all ages...	...	...	20,356
Number of inhabited houses	...	...	4,228
Average number of persons per house...	...	...	5.28
Area of District in acres (exclusive of area covered by water) ...	...	...	972½

At Census of 1911.

LOCAL GOVERNMENT BOARD TABLE.
TABLE II. CASES OF INFECTIOUS DISEASE notified during the Year 1911.

NOTIFIABLE DISEASE.	NUMBER OF CASES NOTIFIED,							TOTAL CASES NOTIFIED IN EACH LOCALITY. (e.g. Parish or Ward) of the District.				TOTAL CASES RE-MOVED TO H'TAL	
	At All Ages.	At Ages—Years.						1	2	3	4		
		Under 1	1 to 5.	5 to 15.	15 to 25.	25 to 45.	45 to 65.						65 and upwards
Small-pox ...	...	...	3	3	1	...	...	...	3	5	...	...	...
Cholera ...	...	...	...	1	...	...	...	...	...	1	...	...	...
Diphtheria (including Membranous croup) ...	8	1	...	...	...	...	...	...	...	...	...	...	...
Erysipelas ...	28	1	12	13	2	...	...	...	12	8	7	1	7
Scarlet fever ...	...	...	...	...	...	...	...	...	...	...	...	...	...
Typhus fever ...	...	...	...	...	...	...	...	...	...	...	...	...	...
Enteric fever ...	1	...	...	...	...	1	...	...	1	...	...	...	1
Relapsing fever ...	...	...	...	...	...	...	...	...	...	...	...	...	...
Continued fever ...	...	...	...	...	...	...	...	...	...	...	...	...	...
Puerperal fever ...	...	...	...	...	...	...	...	...	...	...	...	...	...
Plague ...	...	...	...	...	...	...	...	...	...	...	...	...	...
Under Tuberculosis Reg., 1908	12	...	...	2	...	4	5	1	6	2	4	...	...
Under Tuberculosis Reg., 1911	...	...	...	...	...	...	...	...	...	...	...	...	...
Others ...	...	...	...	...	...	...	...	...	...	...	...	...	...
Phthisis	...	...	...	...	...	...	...	...	...	...	...	...	...
Totals	50	2	15	19	3	5	5	1	19	14	16	1	8

NOTES.—State in space below the name and position within and without the district of the Isolation Hospital, if any, to which residents in the district, suffering from infectious disease, are usually sent, the accommodation available for the district afforded by it, and the name of the authority by whom the hospital is provided.

* This space may be used for record of other diseases, the notification (compulsory or voluntary) of which is in force in the district.
† These age columns for notifications should be filled up in all cases where the Medical Officer of Health, by inquiry or otherwise, has obtained the necessary information.

Isolation Hospital (Name and Situation).—The Hartlepool Port Sanitary Hospital, in the Throston Ward.

Total available Beds—48.

Number of Diseases that can be concurrently treated—3.

TABLE III.

LOCAL GOVERNMENT BOARD TABLE.
Causes of, and Ages at Death during the Year 1911.

CAUSES OF DEATH.		NETT DEATHS AT THE SUBJOINED AGES OF "RESIDENTS" WHETHER OCCURRING WITHIN OR WITHOUT THE DISTRICT (a).									Total Deaths whether of Residents or non-Residents in Institutions in the District (b).
		All Ages.	Under 1 year.	1 and under 2 years.	3 and under 5 years.	5 and under 15 years.	15 and under 25 years.	25 and under 45 years.	45 and under 65 years.	65 and upwards.	
I		2	3	4	5	6	7	8	9	10	
All causes { Certified (c) Uncertified ..	.. ..	410 8									
Enteric Fever ..	..	..	..	..	..	..	..	..	..	..	1
Small-pox ..	..	..	..	..	..	..	..	..	..	..	1
Measles ..	..	3	3	..	..	..	..	..	..	..	1
Scarlet Fever ..	..	..	..	..	..	..	..	..	..	..	1
Whooping Cough ..	..	2	..	2	..	..	..	..	..	..	1
Diphtheria and Croup (See note (d))	..	3	1	..	2	..	..	..	..	..	1
Influenza ..	..	5	..	2	..	1	..	1	1	..	..
Erysipelas ..	..	..	..	..	..	..	..	..	..	..	..
Cerebro-Spinal Fever ..	..	..	..	..	..	..	..	..	..	..	..
* Phthisis (Pulmonary Tuberculosis)	..	35	..	..	..	6	6	14	9	..	5
Tuberculous Meningitis. (See note (e)) ..	..	7	2	1	3	1	..	..	..	..	..
Other Tuberculous Diseases ..	..	13	1	1	1	2	1	2	3	2	5
Rheumatic Fever ..	..	2	..	..	..	1	1	..	..	..	..
Cancer, malignant disease. (See note (f)) ..	..	25	..	..	..	..	..	1	11	13	12
Bronchitis ..	..	31	11	2	2	1	..	..	7	8	6
Broncho-Pneumonia ..	..	8	..	1	5	1	..	..	..	1	..
Pneumonia (all other forms)	..	21	7	2	..	2	2	2	5	1	2
Other Diseases of Respiratory Organs ..	..	6	..	..	1	..	1	2	..	2	1
Diarrhoea and Enteritis. (See note (g)) ..	..	37	20	8	3	2	..	..	2	2	2
Appendicitis and Typhlitis ..	..	2	..	..	..	1	..	1	..	..	2
Alcoholism. (See note (h)) ..	..	1	..	..	..	..	..	..	..	..	..
Cirrhosis of Liver ..	..	3	..	..	..	..	..	..	3	..	..
Nephritis and Bright's Disease ..	..	12	1	..	..	..	..	2	2	7	4
Puerperal Fever. (See note (i)) ..	..	..	..	..	..	..	..	..	..	..	..
Other accidents and diseases of Pregnancy and Parturition ..	..	1	..	..	..	..	..	1	..	..	..
Congenital Debility and Malformation, including Premature Birth. (See note (j)) ..	..	41	39	1	1	..	..	..	..	..	..
Violent Deaths, excluding Suicide	..	22	3	..	3	2	4	3	5	2	10
Suicides ..	..	2	..	..	..	..	..	1	1	..	..
Atelectasis Pulmonum ..	..	2	2	..	..	..	..	..	..	..	..
Senility ..	..	28	..	..	..	..	..	..	1	27	9
Other Defined Diseases ..	..	99	8	4	4	2	5	15	36	25	24
Diseases ill-defined or unknown ..	..	7	7	..	..	..	..	..	..	..	..
		418	105	24	25	22	20	45	87	90	86

* Here should be enumerated any deaths from other diseases than those given above, having public health importance, such as Typhus Fever, Continued Fever, Relapsing Fever, Dysentery, Glanders, Anthrax, and Lead-poisoning.

NOTES ON TABLE III.

- (a) All "Transferable Deaths" of residents, *i.e.*, of persons resident in the District who have died outside it, are to be *included* with the other deaths in columns 2—10. Transferable deaths of non-residents, *i.e.*, of persons resident elsewhere in England and Wales who have died in the District, are in like manner to be *excluded* from these columns. For the precise meaning of the term "transferable deaths" *see* footnote to Table I.

The total deaths in column 2 of Table III should equal the figures for the year in column 12 of Table I.

- (b) All deaths occurring in Institutions for the sick and infirm situated within the District, whether of residents or of non-residents are to be entered in the last column of Table III.
- (c) All deaths certified by registered Medical Practitioners and all Inquest cases are to be classed as "Certified"; all other deaths are to be regarded as "Uncertified."
- (d) This heading includes all deaths from croup except those certified as due to "spasmodic," "stridulous," "catarrhal," or "false" croup.
- (e) Under "Tuberculous Meningitis" are to be included deaths from Acute Hydrocephalus.
- (f) Under "Cancer" should be included deaths under such headings as Carcinoma, Scirrhus, Epithelioma, Rodent ulcer, Sarcoma, Cancer, and Malignant Disease.
- (g) Under this heading are to be included deaths registered as due to Epidemic diarrhoea, Epidemic enteritis, Infective enteritis, Zymotic enteritis, Summer diarrhoea, Choleraic diarrhoea, Cholera (other than Asiatic), Gastro-enteritis, Gastro-intestinal catarrh, Muco-enteritis, Colitis, &c. Deaths from Diarrhoea secondary to some other well-defined disease should be included under the latter.

For "Dysentery" *see* note at foot of Table III.

- (h) Under this heading are to be included deaths from Delirium Tremens, acute and chronic alcoholism, &c., but *not* those certified as due to organic disease attributed to alcoholism. The number of the latter may with advantage be stated separately, though this statement cannot be included in Table III.
- (i) Under "Puerperal Fever" are to be included deaths under such headings as Pyæmia, Septicæmia, Sapræmia, Pelvic Peritonitis, Peri- and Endo-Metritis occurring in the Puerperium.
- (j) Under this heading are to be included also deaths from Atrophy and Marasmus of Infants, and want of Breast-Milk, but not from Atelectasis.

In any case of doubtful classification of deaths, the Manual to be issued shortly by the Registrar-General should be followed.

TABLE IV. LOCAL GOVERNMENT BOARD TABLE.
INFANT MORTALITY.

1911. Nett Deaths from stated causes at various Ages under 1 Year of Age.

CAUSE OF DEATH.		Under 1 week	1-2 weeks	2-3 weeks	3-4 weeks	Total under 1 month	1-3 months	3-6 months	6-9 months	9-12 months	Total Deaths under 1 year
All causes	Certified	23	4	5	2	34	25	14	9	20	105
	Uncertified	2	..	..	..	2	..	..	1	..	
Small-pox	..	..	..	..	..	..	..	..	..	..	..
Chicken-pox	..	..	..	..	..	..	..	..	..	..	..
Measles	..	..	..	..	..	..	..	..	1	2	3
Scarlet Fever	..	..	..	..	..	..	..	..	1	..	1
Diphtheria and Croup	..	..	..	..	..	..	..	..	1	..	1
Whooping-cough	..	..	..	..	..	..	..	..	..	..	..
Diarrhœa	..	..	..	..	..	..	1	2	..	2	5
Enteritis	..	..	..	..	..	..	2	6	3	4	15
Tuberculous Meningitis	..	..	..	..	..	..	..	..	..	2	2
Abdominal Tuberculosis (b)	..	..	..	..	..	..	1	..	..	..	1
Other Tuberculous Diseases	..	..	..	..	..	..	..	..	..	..	..
Congenital Malformations (c)	..	..	..	..	..	..	..	..	..	..	..
Premature Birth	..	15	..	1	1	17	..	..	..	..	17
Atrophy, Debility and Marasmus	..	6	1	3	1	11	7	2	1	1	22
Atelectasis	..	2	..	..	..	2	..	..	..	..	2
Injury at Birth	..	1	..	..	..	1	..	..	..	..	1
Erysipelas	..	..	..	..	..	..	..	..	..	..	..
Syphilis	..	..	..	..	..	..	..	..	..	..	..
Rickets	..	..	..	..	..	..	..	..	..	..	..
Meningitis (not Tuberculous)	..	..	..	..	..	..	..	..	..	1	1
Convulsions	..	1	2	1	..	4	1	1	..	1	7
Gastritis	..	..	..	..	..	..	2	..	2	2	6
Laryngitis	..	..	..	..	..	..	..	..	..	..	..
Bronchitis	..	..	..	..	..	..	6	2	1	2	11
Pneumonia (all forms)	..	..	1	..	..	1	2	..	1	3	7
Suffocation, overlying	..	..	..	..	..	..	2	..	..	..	2
Other causes	..	..	..	..	..	..	1	1	..	..	2
		25	4	5	2	36	25	14	10	20	105

Nett Births in the year { legitimate 625
illegitimate 27

Nett Deaths in the year of { legitimate infants 99
illegitimate infants 6

NOTES TO TABLE IV.

- The total in the last column of Table IV. should equal the total in column 10 of Table I, and in column 3 of Table III.
- Under Abdominal Tuberculosis are to be included deaths from Tuberculous Peritonitis and Enteritis and from *Tabes Mesenterica*.
- The total deaths from Congenital Malformations, Premature Birth, Atrophy, Debility and Marasmus, should equal the total in Table III. under the heading Congenital Debility and Malformation including Premature Birth.
Want of Breast Milk should be included under Atrophy and Debility.
- For references to the meaning of any other headings, see notes attached to Table III.

In recording the facts under the various headings of Tables I., II., III. and IV., attention has been given to the notes on the Tables.

B. C. STEVENS, *Medical Officer of Health.*

Annual Report of the Medical Officer of Health, for the year 1911, for the Borough of Hartlepool,

on the administration of the Factory and Workshop Act, 1901,
in connection with

FACTORIES, WORKSHOPS, WORKPLACES & HOMEWORK.

1.—Inspection of Factories, Workshops and Workplaces.

Including Inspections made by Sanitary Inspectors or Inspectors of Nuisances.

Premises. (1)	Number of		
	Inspections. (2)	Written Notices. (3)	Prosecutions. (4)
Factories (including Factory Laundries)	4	—	—
Workshops (including Workshop Laundries)	281	7	—
Workplaces (other than Outworkers' premises in- cluded in Part 3 of this Report)	—	—	—
Total	285	7	—

2.—Defects found in Factories, Workshops and Workplaces.

Particulars. (1)	Number of Defects			Number of Prosecut'ns. (5)
	Found. (2)	Remedied. (3)	Referred to H M. Inspector. (4)	
<i>Nuisances under the Public Health Acts :—</i>				
Want of cleanliness	30	30	—	—
Want of ventilation	3	3	—	—
Overcrowding	—	—	—	—
Want of drainage of floors	—	—	—	—
Other nuisances	7	6	—	—
Sanitary accommodation { insufficient	—	—	—	—
{ unsuitable or defective	3	3	—	—
{ not separate for sexes	1	1	—	—
<i>Offences under the Factory and Workshop Act—</i>				
Illegal occupation of underground bake- house (s 101)	—	—	—	—
Breach of special sanitary requirements for bakehouses (ss 97 to 100)	—	—	—	—
Other offences (excluding offences re- lating to outwork which are included in Part 3 of this Report)	—	—	—	—
Total	44	43	—	—

*Including those specified in sections 2, 3, 7 and 8 of the Factory and Workshop Act as remediable under the Public Health Acts.

3—HOMEWORK.

OUTWORKERS' LISTS. SECTION 107.							
NATURE OF WORK.	Lists received from Employers.						Notices served on Occupiers as to keeping or sending lists.
	Sending twice in the year.			Sending once in the year.			
	Lists	Outworkers		Lists	Outworkers		
		Contractors	Workmen		Contractors	Workmen	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Wearing Apparel—							
(1) making, &c.						
(2) cleaning and washing						
Household linen						
Lace, lace curtains and nets..	..						
Curtains and furniture hangings						
Furniture and upholstery						
Electro-plate						
File making						
Brass and brass articles						
Fur pulling						
Cables and chains						
Anchors and grapnels..	..						
Cart gear						
Locks, latches and keys						
Umbrellas, &c..	..						
Artificial flowers						
Nets, other than wire nets						
Tents						
Sacks						
Racquet and tennis balls						
Paper bags and boxes..	..						
Brush making						
Pea picking						
Feather sorting						
Carding, &c., of buttons, &c.						
Stuffed toys						
Basket making..	..						
Total						

NIL

4.—REGISTERED WORKSHOPS.

Workshops on the Register (s. 131) at the end of the year.				Number
Important classes of workshops, such as workshop bakeries, may be enumerated here.	Dressmakers			7
	Milliners			5
	Tailors			4
	Bakers			5
	Fish Curers			11
	Boot Repairers			6
	Other Trades			11
Total number of Workshops on Register				49

5.—OTHER MATTERS.

Class.	Num
Matters notified to H.M. Inspector of Factories.—	—
Failure to affix Abstract of the Factory and Workshop Act (s. 133)	—
Action taken in matters referred by H.M. Inspector as remediable under the Public Health Acts, but not under the Factory and Workshop Act (s. 5)—	
Notified by H.M. Inspector	5
Reports (of action taken) sent to H.M. Inspector	5
Other	—
Underground Bakehouses (s. 101):—	2
Certificates granted during the year	—
In use at the end of year	2

Part II.—Education.

Report on the Medical Inspection of Schools in the Borough of Hartlepool,

BY

B. C. STEVENS, M.D., F.R.C.S.E., D.P.H. (Oxon.)

There are nine elementary schools in the borough, comprising five provided and four non-provided. These schools accommodate about 4,700 scholars, and have an average number on the books of about 4,500.

The system of medical inspection of schools in this borough has been thoroughly revised, and with the help of the wardens and the teachers it is now in very good going order, and I doubt not that in a very short time good results will accrue, and be appreciated by all concerned. My best thanks are due to the teachers and wardens for the interest, keenness, and help they have shewn in this work. The only "extra" required now is a School Nurse, as her work is beyond the province of the medical officer, since she is able to visit the homes, give simple and tactful advice and help; and so do much to alleviate many of the minor ailments revealed by medical inspection. Moreover, she can give advice on infant management and feeding, and so indirectly help to lower the rate of infantile mortality, which is so great in most towns.

To a certain extent I am able to take the place of a school nurse by establishing at my office an "Inspection Clinic," where simple instructions are given to those cases who have no medical attendant or are not in a position to pay for such.

★ The poor in this town are greatly handicapped by having no hospital where they can attend as out-patients. On the other hand they have the advantage of clubs, to which the male supporters contribute. Nevertheless, there are many families who are not in clubs, nor can they be allowed parish relief; and these are the people who miss the advantages of an out-patient department at the hospital; and it is the children of these people who require the services of a school nurse.

★ Had there been an out-patient department, it would not be reasonable to expect School Children to be treated there regularly unless some contribution was made to the Hospital funds by the Education Authority.

The children who have passed through my hands since I started here are numerically made up as follows:—

{ Infant Boys	...	...	260
{ Infant Girls	...	...	230
{ "Leavers" Boys	...	...	178
{ "Leavers" Girls	...	...	191
{ "Non Routine" or Special cases			237
{ Other "Special" cases	...	...	45
Boarded-out children	...	...	8
Those seen at my Inspection Clinic			112

GRAND TOTAL ... 1,261

These groups will be dealt with seriatim, and an analysis of the defects found will be given under each heading.

INFANTS.

Analysis of 260 Infant Boys (average age 5).

Number examined	...	...	260
Number recommended for treatment			104
Feeble minded	...	...	1
Mentally subnormal	...	...	3
Poorly nourished	...	...	27
Defective speech	...	...	6
{ Verminous heads	...	...	8
{ Dirty heads	...	...	17
{ Verminous bodies	...	...	2
{ Dirty bodies	...	...	40
Ringworm	...	...	2
Impetigo (scabbed sores)	...	...	12
{ Enlarged tonsils	...	...	8
{ Adenoids	...	...	2
{ Nasal catarrh	...	...	11
Enlarged neck glands	...	...	7
{ Good teeth (not more than 1 decayed)			217
{ Fair teeth (2 to 6 decayed)	...	...	36
{ Bad teeth	...	...	7
{ Ear discharge	...	...	1
{ Deafness and excess of wax in ear			2
{ Squint (which means defective vision)			8
{ Conjunctivitis	...	...	6
{ Blepharitis (sore eye-lids)	...	...	4
Diseased or weak heart	...	...	2
Anæmia and pallor	...	...	7
Bronchial catarrh and poor chest expansion	...	...	9
Nervous habits	...	...	4
Infantile paralysis	...	...	1
Pre-disposed to consumption	...	...	1
Rickets	...	...	1

Deformities	...	...	2
{ Defective clothing	...	...	65
„ boots	...	...	27
{ No boots	...	...	23
Neglect	...	...	3
Other skin diseases	...	...	4
Miscellaneous	...	...	3

Analysis of 230 Infant Girls (average age 5).

Number examined	...	...	230
Number recommended for treatment	...	...	110
Mentally subnormal	...	...	1
Poorly nourished	...	...	23
Defective speech	...	...	4
{ Verminous heads	...	...	63
{ Dirty heads	...	...	14
{ Verminous bodies	...	...	4
{ Dirty bodies	...	...	34
Impetigo (scabbed sores)	...	...	8
{ Enlarged tonsils	...	...	2
{ Adenoids	...	...	5
{ Nasal catarrh	...	...	2
Enlarged neck glands	...	...	5
{ Good teeth	...	...	193
{ Fair teeth	...	...	32
{ Bad teeth	...	...	5
Deafness and excess of wax	...	...	3
{ Defective vision	...	...	2
{ Squint and defective vision	...	...	6
{ Conjunctivitis	...	...	4
{ Blepharitis (sore eye-lids)	...	...	9
{ Corneal opacities (scars on eye-balls)	...	...	1
{ Cataract	...	...	1
Diseased or weak heart	...	...	1
Anæmic and pale	...	...	6
Bronchial catarrh and poor chest expansion	...	...	12
Nervous habits	...	...	2
{ Glandular tuberculosis	...	...	1
{ Pre-disposed to consumption	...	...	2
Rickets	...	...	3
Deformities	...	...	2
{ Defective clothing	...	...	36
„ boots	...	...	19
{ No boots	...	...	11
Miscellaneous	...	...	3

Remarks on the 490 Infants (boys and girls) examined.

214 or nearly **44 per cent.** were recommended for treatment which is about the ratio usually found in this age group of children.

MAL-NUTRITION.

50 or about **10 per cent.** were poorly nourished, these were not necessarily under-fed, but wrongly fed, or showed the effects of insufficient sleep and fresh air, and who probably sleep in those bed-places which are so unhealthy. To the parents of many of these children were given pamphlets dealing with infant feeding and the hygiene of home-life.

VERMINOUS HEADS.

71 children (of whom **63** were girls) or about **14 per cent.** were found with verminous heads. Either head lice were seen or their eggs (nits) waiting to hatch out, which they do in about two weeks.

The great prevalence of head lice in girls is of course due to their longer hair and the consequent difficulty of keeping it clean. An infant girl attending a public day school should have her hair combed carefully through with a tooth-comb every evening; and the hair should be occasionally dressed with a mixture of paraffin and olive oil. Ordinary washing with soap and water is insufficient as the nits are found difficult to comb off the hair; the head should be sponged with warm vinegar which helps to loosen the attachment by which the nit holds on.

One must blame, to a certain extent, the cloakrooms for the spread of vermin. Very few cloakrooms are sensibly arranged; the pegs are much too close together and consequently there is much overlapping of hats and coats. Twelve inches apart is the distance recommended by the Board of Education, but as pegs are arranged below one another and alternately, the real distance between any two pegs is only six inches; it should be twelve inches at least.

To every case of verminous head was sent a card of instructions carefully and simply explaining the procedure of ridding the head of this trouble.

DIRTY HEADS AND BODIES.

105 children or nearly **22 per cent.** showed a scanty acquaintance with soap and water. This reflects badly on the parents and reveals a want of pride, care, and self respect which in turn means a lamentable deterioration in what should and can easily be, a clean, decent, English home.

IMPETIGO OR SCABBED SORES.

20 children or **4 per cent.** had this very contagious form of skin disease. It should be understood from the first that this is essentially a "dirt" disease and does not occur in well-cared-for children unless by direct inoculation of the poison from an infected child. This condition when seen on the scalp is almost always due to the irritation of vermin, and it is pitiable to see such a case and to hear the mother say that "the child's blood is out of order, and ask what shall she take as medicine."

A leaflet pointing out the contagiousness of these cases was given to each case.

TONSILS, ADENOIDS, AND NASAL CATARRH.

Enlarged tonsils and adenoids were not noticed to be prevalent amongst the infants—there being only **17** cases to report. To each of these a card was sent explaining the drawbacks to a child suffering from obstruction to his breathing.

There were **13** cases of **nasal catarrh** or 'running' nose noted—this may seem a trivial thing to report upon, but a nose which is obstructed by mucus leads to mouth breathing with its attendant disadvantages. The point is that every child should be given a **handkerchief** so that the nose can be kept clean; and the filthy habit of wiping the nose on the coat sleeve abolished.

ENLARGED NECK GLANDS.

Only **12** such cases were noticed. These glands enlarge from irritation or from the absorption of some poison—hence they enlarge in cases of verminous or scabbed head, running-ears, sores on the face, bad teeth, inflamed tonsils, etc. The glands which enlarge in **mumps** are of quite a different nature and are differently situated.

TEETH.

The teeth of the infants are exceptionally good, **84 per cent.** having good sets. To those who presented defective sets a card was sent pointing out the advantages of the tooth brush and the danger of decayed teeth. The good teeth I attribute in part to heredity, to water containing lime salts and to the coarser kinds of food. Certainly the tooth brush is not the cause, for very few infants use one.

DEFECTIVE VISION.

The infants are not tested as a routine measure for defective vision but some **14** were found with **squint** or other defect in vision. These were recommended to obtain spectacles and to use the squinting eye as much as possible. This is necessary because an eye which squints gets no use, and an eye which gets no use goes blind in under 3 years.

OTHER EYE DISEASES.

These comprise **10** cases of **conjunctivitis** some of them highly contagious; **13** cases of **sore eyelids**; **1** case of **cataract**, and **1** of old **ulceration** on the clear front portion of the eye.

To all of these cases cards were sent urging them to get immediate medical attention.

HEART DISEASE.

A weak action of the heart was noticed in **3** cases only. The parents were duly warned and urged to get medical advice.

ANÆMIA AND PALLOR.

There were **13** cases of "**poorness of blood**" attributable chiefly to the same causes as those given under "**poorly nourished**" children.

BRONCHIAL CATARRH.

There were **21** cases of **bronchial catarrh**, and these occurred chiefly in poorly-clothed and badly-shod children. Parents should remember the bleak harsh climate of this north-east coast and clothe their children suitably.

TUBERCULOSIS.

There was only **1** case of **tubercular glands**; while only **3** children showed a **predisposition** to **consumption**. These facts should not mislead one for I shall be able to show elsewhere that there were at least **50 deaths last year** from some form of tuberculosis in this borough.

RICKETS.

There were only **4** cases of **rickets** noticed; this is what we would expect where the water is so hard.

DEFECTIVE CLOTHING.

65 boys and **36 girls** or about **20 per cent.** of the **infants** were poorly clothed; some cases were very much deficient in clothes, others were ragged and dirty. As is always the case the boys were worse than the girls, partly due to the greater destructiveness of boys and partly because girls' clothes last longer than boys'.

There was, however, much evidence to show that there is a great deal of neglect and idleness at home, in the way of repairing clothes, and of suitably clothing the children. If the gadding gossiping housewife would spend more time in the house and less on the doorstep the children and the husband would benefit materially.

DEFECTIVE BOOTS.

42 children were found to be deficiently shod, causing them to have cold, wet feet, thus paving the way for bronchial troubles and colds.

People seem prejudiced against the warm, strong, lasting clog of Lancashire and Scotland. They are noisy, but that is all that can be said against them.

NO BOOTS.

34 children had no boots at all—which is perhaps a little better than wearing the shapeless masses of sodden leather that some of the others wear. The result of wearing no boots is seen in the number of cases of children limping about with a dirty rag round the foot covering up some wound due to glass, nails, or sharp stones.

The Henry Smith Charity is doing good work in supplying some of the more destitute cases with boots; but I am convinced that if some of the parents spent less in drink their children would be able to go to school in decent boots.

“LEAVERS.”

We will now review the Senior Scholars or the “Leaver” age group.

The advantages of examining the new arrivals at school are apparent but perhaps they are not so clear in the case of the “Leavers.”

The **advantages** gained by examining "**Leavers**" are :—

- (a) They form a test group in which are shewn the final results, either good or bad, of school life.
- (b) Under the Education (Choice of Employment) Act, 1910, their record may be useful evidence when debating what their future employment shall be.

BOYS.

Analysis of 178 "Leavers," (Boys) average age 13.

Number examined	...	...	...	178
Number recommended for treatment	...	...	...	86
Mentally subnormal	...	...	...	3
Poorly nourished	...	...	...	36
Defective speech	...	...	...	1
{ Verminous heads	...	...	...	1
{ Dirty heads	...	...	...	15
{ Verminous bodies	...	...	...	2
{ Dirty bodies	...	...	...	36
Ringworm	...	...	...	1
Impetigo (scabbed sores)	...	...	...	1
Enlarged tonsils	...	...	...	9
Enlarged neck glands	...	...	...	9
{ Good teeth	...	...	...	123
{ Fair teeth	...	...	...	50
{ Bad teeth	...	...	...	5
Ear discharge	...	...	...	3
Deafness and excess of wax	...	...	...	3
{ Defective vision...	...	...	...	42
{ Squint and defective vision...	...	...	...	5
{ Blepharitis (sore eyelids)	...	...	...	5
{ Corneal opacities (results of ulcers)	...	...	...	2
„ ulcer	...	...	...	1
{ Coloboma of iris (defective pupil of eye)	...	...	...	1
Diseased or weak heart's action	...	...	...	4
Anæmia	...	...	...	1
Bronchial catarrh and deficient chest expansion	...	...	...	10
{ Glandular tuberculosis	...	...	...	1
{ Predisposed to consumption	...	...	...	2
{ Defective clothing	...	...	...	72
„ boots	...	...	...	31
{ No boots	...	...	...	7
Miscellaneous	...	...	...	3

GIRLS.**Analysis of 191 "Leavers" (Girls), average age 13.**

Number examined	...	...	...	191
Number recommended for treatment	...	...	...	112
{ Feeble minded	...	...	...	3
{ Mentally subnormal	...	...	...	7
Poorly nourished	...	...	...	44
Defective speech	...	...	...	1
{ Verminous heads	...	...	...	64
{ Dirty heads	...	...	...	11
{ Verminous bodies	...	...	...	1
{ Dirty bodies	...	...	...	22
Impetigo (scabbed sores)	...	...	...	2
{ Enlarged tonsils	...	...	...	18
{ Adenoids	...	...	...	3
Enlarged neck glands	...	...	...	6
{ Good teeth	...	...	...	132
{ Fair teeth	...	...	...	56
{ Bad teeth	...	...	...	3
{ Ear discharge	...	...	...	7
{ Deafness and excess of wax	...	...	...	9
{ Defective vision...	...	...	...	52
{ Defective vision and squint	...	...	...	4
{ Blepharitis (sore eyelids)	...	...	...	7
{ Keratitis	...	...	...	1
{ Cataract	...	...	...	1
Diseased or weak heart	...	...	...	4
Anæmia	...	...	...	10
{ Bronchial catarrh and poor chest expansion	...	...	...	8
{ Bronchiectasis...	...	...	...	1
Nervous habits	...	...	...	7
{ Glandular tuberculosis	...	...	...	3
{ Old bone tuberculosis	...	...	...	1
{ Pulmonary	...	...	...	1
{ Predisposed to consumption	...	...	...	2
Rickets	...	...	...	1
{ Defective clothing	...	...	...	39
{ Defective boots...	...	...	...	42
{ No boots	...	...	...	1
Miscellaneous	...	...	...	4

Remarks on the "Leavers," (Average age 13). Out of a total of **369** examined **178** or about **50 per cent.** were recommended for treatment, which is rather high.

MALNUTRITION.

80 or nearly **22 per cent.** were poorly nourished and the same remarks apply to them as to the infant group.

VERMINOUS HEADS.

65 of whom 64 were girls had verminous heads—this is about **18 per cent.** The only difference between this group and the infant group is that in the latter we blame the parents and in the former we blame the girls themselves; for a girl of 13 is quite capable of keeping herself and her hair clean and tidy. To all these cases cards of instruction were given, and a great improvement is looked for in the near future.

UNCLEAN HEADS AND BODIES.

There were **84** cases in which a more liberal application of soap and water was desirable. This means that **23 per cent. of the senior scholars** are not so clean as they might be.

I think that in these cases the teachers might help considerably, by making the dirty scholars wash themselves before a dozen or more of their cleaner class-mates. I venture to say that a few lessons of this sort would have a very salutary effect generally.

ENLARGED TONSILS.

There were **27 cases of enlarged tonsils**, and in most cases the parents were asked to have them removed.

ENLARGED NECK GLANDS.

There were **15 cases of enlarged neck glands**, and the causes are given under a similar heading in the infant group.

TEETH.

The **teeth** again were remarkably good, the percentage of **good sets** being **69**. **Fair sets** were equal to **29 per cent.** while the remaining **2 per cent.** had **bad sets**. To those with defective sets a card of instructions was sent.

DEFECTIVE VISION.

This heading is perhaps the most striking of all the defects revealed by medical inspection. The number of children found with errors of refraction, squint, and partial blindness is alarming. Now education is to some extent responsible for this, for it is found that the greater proportion of defects in vision occur in badly-lighted schools; and again the greater proportion of sufferers are girls, who, in the opinion of many, are taught needlework at too early an age, too long at a time, and often in an indifferent light.

The Hartlepool Education Authority has shown much wisdom and kindly consideration in providing spectacles for these children at a greatly reduced rate. The cost is recoverable from the parents in such cases, and in such manner, as can be best afforded.

At the present time the more severe cases are being dealt with, while the milder cases will be subjected to a second examination in a few months' time.

101 senior scholars were found with some defect in vision requiring amelioration. Of these **56 were girls** and **47 were boys**; this means about **26 per cent.** It is hardly credible that some of the parents refuse to let their children wear glasses.

OTHER EYE CONDITIONS.

There were **12** cases of **sore eye-lids** due either to ill-health, defective vision or dirt. There was **1** case of **cataract**, **1** of **corneal ulcer**, and **2** of **scars after corneal ulcer**, all causing very serious defects in vision.

HEART DISEASE OR WEAK ACTION OF HEART.

There were **8** such cases—comprising **4 boys** and **4 girls**. The parents were advised to secure medical attention.

BRONCHIAL CATARRH & DEFICIENT CHEST EXPANSION.

There were **18** such cases mostly in the more poorly nourished and badly clothed children. Neglected bronchial catarrh paves the way for pulmonary tuberculosis; and much may be done towards improvement by proper breathing exercises and suitable medical treatment.

TUBERCULOSIS.

There were **4** cases of **glandular** tuberculosis; **1** of **bone** tuberculosis (healed); **1** of **pulmonary** tuberculosis; while **4** cases were predisposed to consumption. Consumption cartoons have been posted up in all the schools.

DEFECTIVE CLOTHING.

There were **111** children with deficient or ragged clothes, including **72 boys** and **39 girls**. The remarks made under this heading in the infant group again apply, though of course the infants are helpless, while these older children can very well help themselves and keep cleaner and tidier than they have been in the past.

DEFECTIVE FOOTGEAR.

This condition was noticed in **73 cases** while **8** children had **no boots** at all.

EAR DISCHARGE.

In the **10** cases of discharging ears (some of which were very foul), cards were sent to the parents pointing out the danger of brain trouble and the handicap arising from deafness; and immediate medical attention was urged.

Having dealt with the "**Routine Infants**" and "**Leavers**" it is now necessary to comment on the "**Non-Routine**" or "**Special**" cases.

These are children selected by the teachers from the various classes and presented to me for inspection when I am at that particular school.

I examined **237** such cases (boys and girls) and referred **226** for treatment.

"NON-ROUTINE CASES."**Analysis of 237 "Non-Routine" Cases.**

Number examined	...	237
Number recommended for treatment	...	226
{ Feeble minded	... ..	2
{ Mentally subnormal	... ..	10
{ Poorly nourished	... ..	15
{ Defective speech	... ..	3
{ Verminous heads	... ..	17
{ Verminous bodies	... ..	2
{ Dirty bodies	... ..	5
{ Scabies (Itch)	... ..	4
{ Impetigo (scabbed sores)	... ..	12
{ Enlarged tonsils	... ..	16
{ Adenoids	... ..	17
{ Nasal Catarrh	... ..	3
{ Enlarged neck glands	... ..	2
{ Bad teeth	... ..	1
{ Ear discharge	... ..	11
{ Deafness and excess of wax	... ..	23
{ Defective vision	... ..	73
{ Defective vision and squint	... ..	37
{ Conjunctivitis	... ..	4
{ Blepharitis	... ..	18
{ Other eye disease	... ..	5
{ Anæmia	... ..	3
{ Bronchitis	... ..	2
{ Kidney disease	... ..	1
{ Chorea	... ..	1

Infantile paralysis	...	...	...	3
{ Glandular tuberculosis	...	...	...	1
{ Hip do.	...	...	...	1
{ Skin do.	...	...	...	1
{ Predisposed to do.	...	...	...	2
Rickets	...	...	...	1
Deformities	...	...	...	6
{ Defective clothing	...	...	...	12
{ „ boots	...	...	...	3
{ No boots	...	...	...	3
Neglect	...	...	...	10
Miscellaneous	...	...	...	8

Attention is called again here to **110 cases** of **defective vision**, and **27** other cases of **eye defects**.

In the **10 cases** of **neglect** strong letters were sent to the parents, and if on re-examination there is not a marked improvement these parents will have to give an explanation before the magistrates.

Letters and cards were sent to the parents of all the cases tabulated above.

Absentees and others removed from the school registers.

I made a point of looking up some **45** of these children, chiefly with a view to finding out those who were incapable of deriving benefit at a public elementary school.

An analysis of such cases is as follows:—

Number seen	-	-	-	45
Feeble-minded	-	-	-	9
Poorly nourished	-	-	-	1
Verminous head	-	-	-	1
Ringworm	-	-	-	2
Impetigo	-	-	-	2
Operation for squint	-	-	-	1
Bronchitis	-	-	-	2
Bronchiectasis	-	-	-	1
{ Glandular tuberculosis	-	-	-	4
{ Abdominal do.	-	-	-	2
{ Predisposed to do.	-	-	-	5
{ Lupus	-	-	-	1
Scurvy-Rickets	-	-	-	1
Deformities	-	-	-	1
Injuries	-	-	-	2
Infectious diseases	-	-	-	3
Rheumatism	-	-	-	4
Kidney disease	-	-	-	2

In this group the only item calling for remark and comment is that of **9 feeble minded children**. Now these 9 children are so bad that they cannot be tolerated in a general class. What is to be done for them? What is their future?

Under the "Defective and Epileptic Children's Act" the Local Authority has the power of making provision for these children up to the age of 16. Some authorities have done this but there are such a number of these children still uncared for, that in the very near future legislation will make it obligatory on the part of every Local Authority to provide special classes for such children or have them removed to special institutions.

In this borough I have computed that there are **15** children who are unable to derive any benefit from ordinary school education; and that there are **24** others who are mentally subnormal and several classes behind other children of the same age—quite enough to form a special class under an experienced teacher and assistant.

BOARDED-OUT CHILDREN.

There are **8** such children in the various schools; these have been visited by me, and in one case which I notified as requiring stronger boots these were supplied by the Guardians.

EXCLUSIONS.

As a result of my visits to the schools I found it necessary to exclude for varying periods some **28** children for the following conditions:—

Verminous heads	-	-	-	-	-	10
„ bodies	-	-	-	-	-	4
Itch	-	-	-	-	-	4
Ringworm	-	-	-	-	-	1
Impetigo	-	-	-	-	-	6
Chicken-pox	-	-	-	-	-	7
Chorea	-	-	-	-	-	1
Febrile catarrh	-	-	-	-	-	1
Conjunctivitis	-	-	-	-	-	1
Corneal ulcer (eye)	-	-	-	-	-	2

INSPECTION CLINIC.

I have supplied all the head teachers with forms on which they notify to me any child whom they consider to be suffering from any infectious or contagious disease. When these names arrive at my office

I instruct the Wardens to look them up, and if they are able, the children come and see me, the idea being that proper medical treatment is insisted upon. This experiment has proved most useful, and has, I am sure, in some cases prevented outbreaks of disease in the schools.

An Analysis of such cases is as follows :

Cases seen	-	-	-	-	-	112
Verminous heads	-	-	-	-	-	12
Ringworm of head	-	-	-	-	-	16
Verminous bodies	-	-	-	-	-	3
Itch	-	-	-	-	-	15
Ringworm of body	-	-	-	-	-	14
Impetigo (scabbed sores)	-	-	-	-	-	29
{ Chicken-pox	-	-	-	-	-	13
{ Whooping Cough	-	-	-	-	-	4
{ Measles	-	-	-	-	-	1
{ Scarlet Fever	-	-	-	-	-	1
{ Eczema	-	-	-	-	-	3
{ Septic wound	-	-	-	-	-	1
Ear discharge	-	-	-	-	-	1
Alopecia (parasitic baldness)	-	-	-	-	-	3
{ Conjunctivitis	-	-	-	-	-	2
{ Blepharitis	-	-	-	-	-	2
{ Corneal ulcer	-	-	-	-	-	1

All these cases were urged to get treatment and were seen several times by me to ensure that progress was being made; and eventually were re-admitted to school with a clearing certificate from me.

Average height and weight of Infants, aged 5.

Boys.

Average height	40'24 ins.
Anthropometric Committee's Standard Average	...				41'0 ins.
Average weight	...	...	...	...	38'08 lbs.
Anthropometric Committee's Standard Average	...				39'9 lbs.

Girls.

Average height	...	...	...	...	39'78 ins.
Anthropometric Committee's Standard Average	...				40'8 ins.
Average weight	...	...	...	...	35'7 lbs.
Anthropometric Committee's Standard Average	...				39'6 lbs.

Both boys and girls are under the average height and weight. The girls are very much below the average weight, and this bears out my previous statement that 10 per cent. of the infants were found to be poorly nourished.

Average height and weight of children aged 13.

Boys.

Average height	...	...	...	...	55.6 ins.
Standard average	...	...	...	...	56.9 ins.
Average weight	...	...	...	...	77 lbs.
Standard weight	...	...	...	...	82.6 lbs.

Girls.

Average height	...	...	...	...	56.4 ins.
Standard height	...	...	...	...	57.8 ins.
Average weight	...	...	...	...	82.6 lbs.
Standard weight	...	...	...	...	87 lbs.

Here again both boys and girls are a little below the standard height, and considerably below the standard weight as given by the Anthropological Society.

This bears out my previous statement that **80** cases or **22 per cent.** of the "**Leavers**" were poorly nourished.

Infectious diseases recorded in the personal histories of 240 children aged 13.

Measles	-	-	-	-	-	214 or 89.2 per cent.
★ Whooping Cough	-	-	-	-	-	89 or 35 ,,
Chicken-pox	-	-	-	-	-	59 or 24.6 ,,
Scarlet Fever	-	-	-	-	-	35 or 14.6 ,,
Diphtheria	-	-	-	-	-	4 or 1.7 ,,

★ *This figure is too high, as there has been very little Whooping Cough of late years.*

SCHOOL HYGIENE.

Comparisons are invidious, but I think a few remarks about each School will be best.

Prissick School.

This is a very good school, probably the best arranged in the town. The little tables and chairs in the babies' class are excellent. The cloak room is very good, and the heating, lighting and ventilating arrangements are all satisfactory.

Galley's Field School.

This school has the best site, is well equipped and appointed. A dust allayer was tried in this school with very promising results.

Baltic Street School.

A good school. This is a large three-storeyed building which would have been congested except for a large hall on each floor, which is a great advantage. The artificial lighting in this school has until recently been very poor, but this is now being remedied.

It is hoped that the Managers of this school will satisfy themselves that the cleaning and dusting is efficiently done. A dust allayer would be very useful here.

It would be a good thing if the scavenging in Back Durham Street were done quite early in the morning as this street forms one of the entrances to the school, and on windy days a nuisance is apt to arise.

Hart Road School.

This is a good school, but here again the Managers should satisfy themselves that the cleaning and dusting is efficiently done. The cloak-room accommodation is hardly sufficient in the girls' department. The temperature is hardly sufficient in some of the girls' class-rooms; and hot water pipes should be carried round the outer walls. The long desks should give way to dual desks.

St. John's School, Middleton.

This is good school, but is very deficient of play-ground accommodation. The store-room is dark and small but improvements are about to take place.

Ann Crooke's School.

This is a fairly good school, but has no adequate lavatory or cloak-room accommodation. Better heating arrangements are required, and the large class-room wants sub-dividing by a glass partition. The old long desks should be replaced by dual ones. By altering the class-rooms and desks a more suitable light can be obtained.

The attention of the Managers has been called to these defects.

Church Close School.

This cannot be classed as a good school. The lighting is not good either naturally or artificially. In several rooms there are two classes going on simultaneously, and partitions are badly required. The girls' cloakroom is dark, awkward and cumbrous.

The Infant department of this school is quite good and much superior to the other two departments.

In the girls' school the ventilating apparatus is not working satisfactorily, the outlets in the roof acting as inlets for very cold air, which descends on the heads of the pupils and teachers. If the two large class rooms in the girls' department could be subdivided into three, teaching would be made easier and the warming and ventilating could be more satisfactorily regulated. Repairs are about to be done to the various windows, doors and fittings,

The playground is very cramped. One room in the girls' school is overcrowded.

Throston School.

Plans are out for the re-construction and re-building of this school, which is badly needed.

The cloakroom in the infant department is very bad, the lighting in most of the class rooms is defective.

The playground is too cramped.

In the girls' department, the cloak-room is poor, the school is badly lighted and badly arranged, and the desks want improving.

The school is sand-blown in a wind.

In the boys' department, the cloak-room is bad and the school is badly lighted and badly arranged. The walls are dilapidated.

St. Bega's School.

The school was formerly an old chapel and consequently could never be made to answer the requirements of a modern school.

The stair-case leading to the first floor is dark and dangerous. The ventilation is not sufficient in all the rooms. The senior boys occupy a large barn-like room shut in by rather dilapidated property; the lighting of this place is not very good and it is too large to be warmed sufficiently unless a second fire-place is used. Dual desks are in use. There are no sanitary conveniences in this department, boys would have to go to those in the main school which are too far off.

As this building is only a temporary makeshift pending the building of a new school, the Managers have done the best under the circumstances and we must leave it at that.

School Cleaning.

The part played by dust in the dissemination of disease is now being slowly appreciated. The dust of schools is derived principally from the footgear of the children, fouled by the dirt of roads and streets, dust from dirty clothing, and emanations from the skin of the occupants. This dust is kept in circulation by the movements of the children in and out of class rooms, and the dust becoming air-borne is breathed by the occupants of the school room. In this way many diseases are conveyed from child to child. Among these may be mentioned the infectious fevers, inflamed eyes, tonsillitis, etc. It becomes necessary, therefore, to keep school dust at a minimum, and this can only be done when an efficient system of school cleansing is in force. Many dust layers are now on the market, and seem to answer the purpose for which they are prepared. The use of such preparations must not, however, be regarded as a substitute for proper school cleaning, but only as a useful auxiliary. Again, it is wrongly imagined that the liberal application of disinfectants to the walls and benches of a school is all that is necessary. When it is remembered that these disinfectants are applied in a state of dilution so weak as to have no true disinfecting properties, the fallacy of substituting disinfection, so called, for the thorough and proper cleaning by means of soap and water is too obvious to be insisted on. School rooms should be thoroughly swept out daily, **damp sawdust** being used for the purpose; and all surfaces of desks, forms, tables, etc., should be thoroughly dusted each day, dusters (damped with paraffin) being used for the purpose. In addition the floors should be thoroughly washed every three weeks and the walls and ceilings should have attention. Maps and diagrams should be taken down, dusted, and put away each day and the prevalent habit of having the walls littered with pictures and drawings should be discouraged, except when required for teaching purposes. The windows of the school room should be kept clean, and outlets and inlets for ventilation, which are, as a rule, veritable dust traps and seldom subserve the function for which they were originally intended, should be kept free from dust. A cleansing register should be kept for each school, and all entries of cleansing systematically made.

Sanitary Arrangements.

In most of the schools the sanitary arrangements are satisfactory and efficient. Most of the schools have water-closets of the trough variety, either flushed automatically at intervals, or under the control of the school cleaner.

INTIMATION OF NON-NOTIFIABLE INFECTIOUS DISEASE.

(MEASLES, WHOOPING COUGH, IMPETIGO,
CHICKEN-POX, MUMPS, RINGWORM, AND SCABIES).

To

THE MEDICAL OFFICER OF HEALTH,
HARTLEPOOL,

I am informed that infectious disease
(.....) has occurred in the family of.....
residing at.....and the facts known to me are as follows:
Patient's Name.....Age.....Onset of Illness (date).....
Last Attendance at School.....
Name and Age of other Members of Family attending School:
(a) Who have **not** had the Disease.....
(b) Who have had the Disease

.....*Head Teacher.*

Date.....19...

.....*School.*

HEALTH DEPARTMENT.

IMPETIGO, such as Scabbed Head.

DEAR SIR OR MADAM,

It is reported to me that your child.....is absent
from School suffering from crusted sores on the skin. This highly
infectious skin disease is much more easily cured in the early stage than
later on. You are earnestly desired to seek medical advice as to treat-
ment without delay, and to persevere with the treatment recommended
until a cure is effected. Precautions should be taken to prevent its
spread to other members of the family by the use of separate towels,
etc., and the avoidance of close contact.

If the crusts affect the head, the lining of the child's cap should
be boiled or burned, before the return to school.

MEASLES.

DEAR SIR OR MADAM,

It is reported to me that your child.....is
suffering from measles. It is important that you should know that this
is not a trivial complaint but a serious illness which frequently gives

rise to grave complications. The child should be under the care of a doctor. Many lives are sacrificed by neglect of this disease owing to parents allowing their children to run about instead of keeping them warm in bed and nursing them carefully.

WHOOPING-COUGH.

DEAR SIR OR MADAM,

It is reported to me that your child.....is suffering from whooping-cough. As many deaths occur from this highly infectious disease it must not be regarded as a slight or unimportant complaint. The child should be kept warm in bed and be properly nursed, and it is very advisable to have the doctor's advice to prevent the occurrence of complications.

RINGWORM.

DEAR SIR OR MADAM,

It is reported to me that your child.....is absent from School suffering from ringworm. This complaint is much more easily cured in the early stage than later on. You are therefore earnestly desired to seek medical advice as to treatment without delay. Precautions should be taken to prevent the spread of ringworm to other members of the family. If the ringworm affects the head the lining of the child's cap should be boiled or burned before the return to school.

DEAR SIR OR MADAM,

With reference to my letter to you of the.....calling your attention to the necessity of cleansing your child..... I regret to find that there is still no improvement in the child's condition. I have therefore ordered his exclusion from School for one week untilon which day he must return to School clean and free from vermin in the head and from nits, which are the eggs of vermin.

I have to warn you that if within this week he (she) is not in a fit state, you are liable to prosecution. It is hoped that this will not be necessary.

MEDICAL INSPECTION OF SCHOOL CHILDREN.

SPECIAL NOTICE OF SERIOUS DEFECT IN VISION.

The Medical Officer (Education) having examined..... reports a defect in Vision likely to seriously affect not only progress in school, but future prospects in life, and you are strongly urged to seek *immediate medical advice* as to the advisability of wearing suitable glasses.

It is particularly requested that a parent or some other responsible person should accompany a child when medical advice is sought.

PLEASE TAKE THIS CARD WITH YOU TO THE DOCTOR.

You are cautioned against the grave risks children may incur by wearing glasses as prescribed by any other than qualified medical men.

When you take your child to be tested for spectacles, the Doctor usually orders either Drops or Ointment to be used at home. It is most important that you should follow out exactly the directions given with the bottle or box. If you have not done so the Doctor, at your second visit, may be unable to prescribe the spectacles. Disappointment and waste of time are the result. Be careful, therefore, to use the Drops or Ointment exactly as directed.

EAR DISEASE.

Continued discharge from the Ear is due to inflammation of parts of the hearing apparatus. If neglected this leads in most cases to deafness and often to inflammation of the brain as a result of the inflammation spreading to a thin portion of bone which separates the ear from the brain. It is hardly necessary to remind you of the severe handicap that deafness is in after-life, not only seriously diminishing the individual's wage earning capacity but also many of their enjoyments. The Medical Officer has to-day examined your child..... and finds that he is suffering from discharge from the.....ear. You are, therefore, urged to place the child under the care of a properly qualified medical practitioner at once and to persevere with the treatment until a cure is effected.

It is particularly requested that a parent or some other responsible person should accompany a child when medical advice is sought.

Date.....

OBSTRUCTED BREATHING.

Obstruction to breathing is due to unnatural conditions of the nose and throat which gradually enfeebles the constitution, blunts the intellect, and prepares the way for many diseases. Removal of the cause of obstruction is followed by marked improvement in the health and intelligence. The Medical Officer has to-day examined your childand finds that he is suffering from.....and you are, therefore, urged to place the child under treatment by a properly qualified medical practitioner as soon as possible.

Date.....

THE CARE OF CHILDREN'S TEETH.

Every child ought to be given a tooth-brush, and it is the duty of the mother to see that the child uses it night and morning.

The tooth-brush should be dipped into water, and then rubbed on a piece of soap or dipped in Tooth Powder. The teeth should be brushed all over, and special care should be taken to brush well the tops of the back teeth.

The large double teeth which a child cuts usually at the age of six years are permanent and require special care—not only because they are permanent but because they are very prone to decay.

Decayed teeth are a serious menace to the health of a child. They cause indigestion, because the food is improperly chewed, and then bolted, so as to avoid the pain caused by pressure on the decayed teeth. The roots of decayed teeth often suppurate, the gums are swollen and tender. The matter discharged from the roots and gums is swallowed, and causes bad health in the child. In addition, pain causes loss of sleep, and affects health and School work.

Your child.....is suffering from decayed teeth and you are strongly urged to seek medical or dental advice as soon as possible.

Date.....

PRIVATE.

NAME OF SCHOOL,

To the Parents or Guardians of.....

The Board have to draw your attention to the state of your child's head.

By carrying out carefully the instructions printed on the other side of this card, the head can be perfectly cleansed in about a week, and it is to your interest to attend to the matter without delay.

If in a week the child's head is not clean, then the only other alternative is to have the hair cut short.

Directions for Cleansing Children's Heads.

1. Rub well into the child's scalp at night a mixture of equal parts of paraffin and olive oil.
2. Wrap the hair in a cloth fastening round the head and leave it on all night.
3. In the morning wash the head well with soft soap and water, and, after drying, comb the hair carefully with a fine-toothed comb dipped in warm vinegar.

If this procedure is repeated every night for a week the child's head will be perfectly clean.

Any crusts on the head should be removed when they are soft enough.

It is advisable not to use vinegar if there is any broken skin.

N.B.—Do not use paraffin near the fire or a naked light, and do not allow the child to approach either after the application of paraffin to the head.

TO THE HEAD TEACHER,.....SCHOOL.

FROM THE MEDICAL OFFICER OF HEALTH.

.....in the family of.....residing at
The patient..... is, I am informed,
 now free from infection, and I hereby certify that School attendance
 may be resumed by the undernoted members of the family on and
 after Monday.....

.....191

B. C. STEVENS. M.D., D.P.H.,

Medical Officer of Health.